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September 7, 2016

Mr. Matthew Aufman
North Carolina Department of
Environmental Quality
Pre-Regulatory Landfill Unit
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

Subject: Work Plan for Task Order 7946RA-3C
Fairview Landfill
Fairview, Buncombe County, North Carolina
Site Identification Number: NCD980557946

Dear Mr. Aufman:

CDM Smith Inc. is pleased to submit this Work Plan and schedule for Task Order 7946RA-3C dated August 8, 2016. Per Task Order 7946RA-3C, the following activities will be completed by CDM Smith:

- Collect common fill and topsoil samples from a local quarry to determine if the material is suitable for use during implementation of the remedy; and
- Abandon three landfill gas probes and one unused water supply well.

A report summarizing the tasks identified above will be completed in accordance with the task order. We look forward to working with you on this project and others. If you have any questions or comments, please do not hesitate to contact me by phone at (919) 325-3532 or by email to weispfenningam@cdmsmith.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "Aaron Weispfenning".

Aaron M. Weispfenning, P.E.
CDM Smith Inc.

cc: Mat Colone, CDM Smith
Daniel Forbes, CDM Smith



Section 1

Task Order 7946RA-3C Background

1.1 General

CDM Smith Inc. (CDM Smith) is pleased to submit this Work Plan for Task Order 7946RA-3C dated August 8, 2016. Per Task Order 7946RA-3C, the following will be completed by CDM Smith at the Fairview Landfill (Site) located in Fairview, Buncombe County, North Carolina.

- Collect common fill and topsoil samples from a local quarry to determine if the material is suitable for use during implementation of the remedy; and
- Abandon three landfill gas probes and one unused water supply well.

A report summarizing the tasks identified above will be completed in accordance with Task Order 7946RA-3C. All field activities will be performed in accordance with CDM Smith's Standard Operating Procedures and Quality Assurance (SOPQA) manual that was approved by the Department of Environmental Quality's Division of Waste Management - Superfund Section - Inactive Hazardous Sites Branch (IHSB) - Pre-Regulatory Landfill Unit (Unit). The Work Plan details and schedule are provided in Section 2 and Section 3 summarizes the reporting.

1.2 Personnel

CDM Smith personnel engaged in invasive field activities at the Site will comply with the Occupational Safety and Health Administration's required health and safety training for hazardous waste sites. Drilling and laboratory services will be performed by a certified North Carolina subcontractor. Appendix B of the *Guidelines for Addressing Pre-Regulatory Landfills and Dumps (November 2015)* was provided to the laboratory to ensure that all analyses are performed within the Unit's guidelines.

1.3 Daily Recordkeeping

Records will be kept in a dedicated logbook to track the progress of field activities. CDM Smith's Project Task Manager and the Unit's Project Manager (PM) will be notified if field conditions or findings require a deviation from the Work Plan. If there are delays due to weather or other unforeseen events, the Unit's PM will be contacted and a written request for extension will be submitted.

CDM Smith will provide an email to the Unit's PM summarizing field activities. Conditions or findings that may cause cost overruns will be communicated immediately to the Unit's PM and work will cease until approval is granted. Unit approved cost overruns will be followed by written correspondence from CDM Smith within 24-hours of verbal approval. The daily field notes and updates along with other means may be used by CDM Smith for invoicing, subcontractor invoice verification, cost overrun justification and billing to the Unit. As such, the logbook will include among other things:

- Travel time between the Site and the CDM Smith office located in Raleigh, North Carolina;
- Date and time spent on-site along with a summary of work performed each day;
- General weather conditions;

- Site visitors;
- Equipment calibration results;
- All field parameters collected;
- Observations that may affect work scope or schedule; and
- Identification of photographs taken prior to beginning a task and at completion.

Section 2

Task Order 7946RA-3C Work Plan

Work performed by CDM Smith during this project will be under the direction of a North Carolina licensed Geologist or Professional Engineer. Field activities and a schedule are summarized below.

2.1 Borrow Material Assessment

Common fill and topsoil samples will be collected from the Grove Stone and Sand Quarry located in Black Mountain, North Carolina in areas where material for implementation of remedy will be excavated. Samples will be collected from five locations using a hand auger. Topsoil samples will be collected from 0 to 12 inches below ground surface (bgs) and common fill samples will be collected below 12 inches bgs. Separate samples for topsoil and common fill are being collected to satisfy the borrow source requirements stated in the Remedial Action Plan. Samples will be submitted to a North Carolina certified laboratory and analyzed for volatile organic compounds (VOCs) by U.S.

Environmental Protection Agency (EPA) Method 8260B, 1,4-dioxane by EPA Method 8260B selective ion monitoring, semi-VOCs by EPA Method 8270D, total metals (i.e. antimony, arsenic, beryllium, cadmium, chromium, copper, iron, lead, manganese, nickel, selenium, silver, thallium, and zinc) by EPA Method 6020B, and mercury by EPA Method 7471B.

2.2 Laboratory and Sampling Quality Control/Quality Assurance

A duplicate sample of common fill and topsoil will be collected for laboratory quality control. The duplicate sample will be analyzed for the same parameters as the primary sample. A trip blank will also be analyzed for VOCs only.

Upon collection, all samples will be labeled and placed in a chilled cooler. Standard chain-of-custody procedures will be followed to document the handling of the samples. Laboratory analyses will be on a standard turnaround of 10 business days. Following receipt of the analytical report from the laboratory, CDM Smith will perform a completeness check. Once all data is verified and the report is satisfactory, CDM Smith will forward the data to the Unit PM along with a completeness letter stating that the data is useable.

2.3 Survey

Northing and easting coordinates will be collected from each sample location using a Trimble GeoXH handheld Global Positioning System (GPS) unit. GPS coordinates will be reported in decimal degrees to the seventh order using the North American Datum of 1983 format with accuracy in the thousands of a meter following differential correction. Latitude and longitude will also be reported using the World Geodetic System 1984 format.

2.4 Landfill Gas Probe and Water Supply Well Abandonment

Three landfill gas probes (GP-01, GP-02, and GP-03) and an unused water supply well (333 Hollywood-A) as shown on **Figure 1** will be abandoned in accordance with 15A NCAC 02C .0100 or .0200 Well

Construction Standards. The 1-inch polyvinyl chloride (PVC) landfill gas probes range in depth from 10 to 12 feet bgs with a total footage of 32 feet. Water supply well 333 Hollywood-A has a depth of approximately 145 feet bgs and consists of an open hole with 6-inch steel casing, PVC discharge pipe, electrical line, and concrete cover. During abandonment, the concrete cover will be removed and the casing, discharge pipe, and electrical line will be cut just below ground surface. An end cap will be placed on the discharge pipe and the electrical line secured with electrical tape. Upon completion the area will be regraded to the surrounding land elevation and reseeded with a hay cover.

2.5 Investigative-Derived Waste

Cover soil sampling equipment will be decontaminated between each location using potable water and a detergent. The drilling subcontractor will properly dispose of all materials removed during the landfill gas probe and water supply well abandonment. Spent personal protective equipment will be placed in a trash bag for disposal in a dumpster at the CDM Smith office.

2.6 Schedule

Field activities will be initiated within 2-weeks of receiving Notice to Proceed from the Unit. The schedule may be adjusted to allow time for the Unit to negotiate access with the property owner(s). CDM Smith anticipates completing field activities in two days. A proposed schedule and personnel involved is provided below in **Table 1**.

Table 1 – Proposed Field Activities Schedule

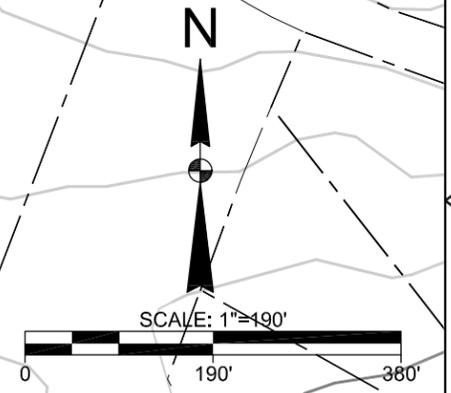
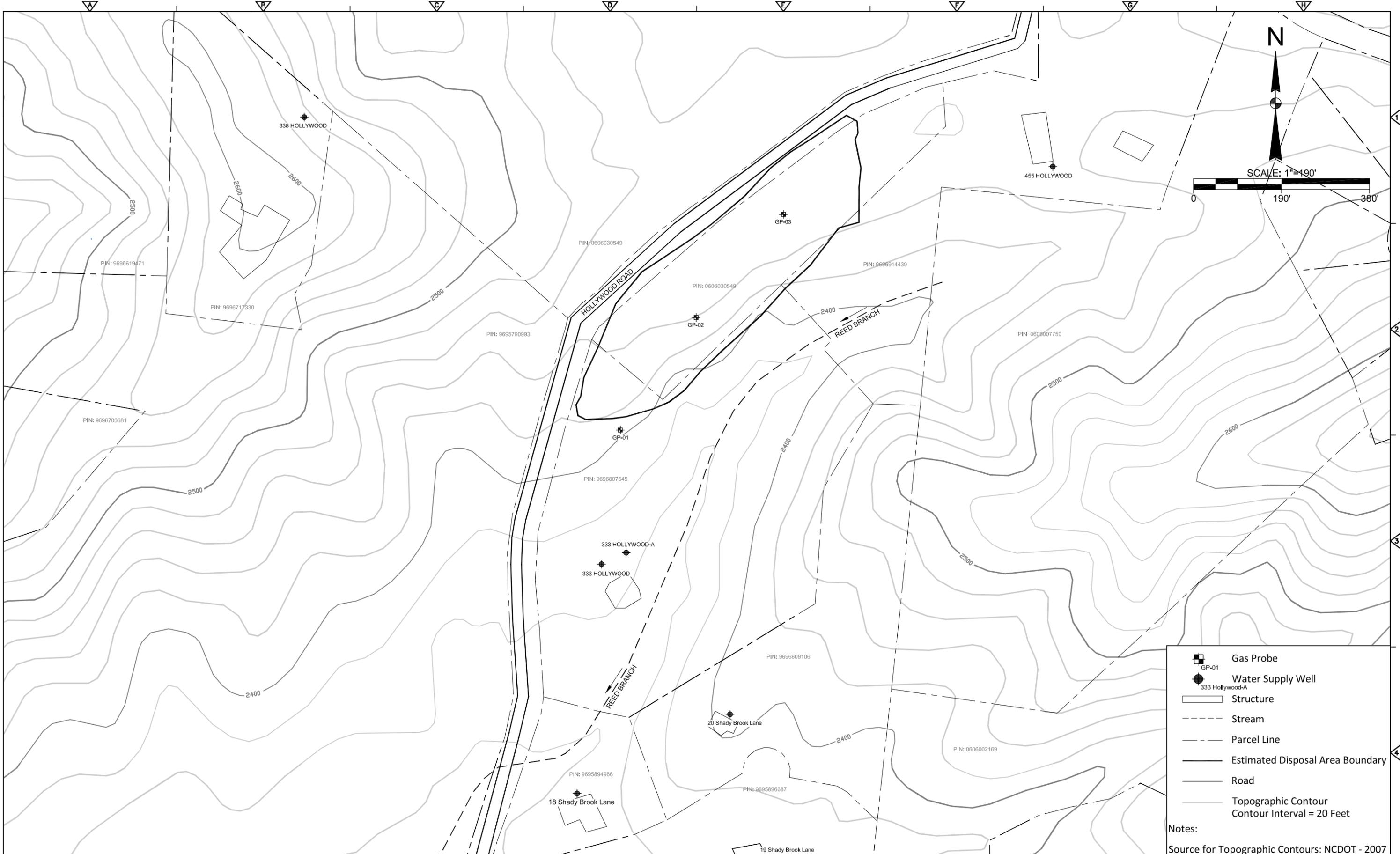
Task	Schedule	Personnel			
		Project	Staff	Technician	Subcontractor(s)
Borrow Material Assessment	Day 1: Collect borrow material samples.	0	1	1	No
Landfill Gas Probe and Water Supply Well Abandonment	Day 2: Abandon 3 landfill gas probes and 1 water supply well.	0	1	1	Yes

Section 3

Task Order 7946RA-3C Report Compilation

A draft report will be prepared following the Unit's approval of the field notes, figures, tables, and laboratory analytical data. The draft summary report will be titled *Remedial Action – Borrow Material Assessment and Well Abandonment* and will include a discussion of field activities, Work Plan or SOPQA variances, tabulated analytical results with comparisons to the IHSB's Preliminary Soil Remediation Goals, a Site map with abandonment locations, a borrow area map with sampling locations and analytical results, tabulated GPS coordinates, well abandonment records, a copy of the field notes, and certification form.

The draft report will be submitted electronically to the Unit within five days of receiving approval of the preliminary documentation. A final copy of the report will be submitted electronically once comments from the Unit on the draft report have been addressed, assumed to be within two days of receiving comments.



- Gas Probe
- Water Supply Well
- Structure
- Stream
- Parcel Line
- Estimated Disposal Area Boundary
- Road
- Topographic Contour
Contour Interval = 20 Feet

Notes:
Source for Topographic Contours: NCDOT - 2007

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: A. WEISPFENNING
 DRAWN BY: A. WEISPFENNING
 SHEET CHK'D BY: D. FORBES
 CROSS CHK'D BY: _____
 APPROVED BY: M. COLONE
 DATE: SEPTEMBER 2016

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FAIRVIEW, BUNCOMBE COUNTY, NORTH CAROLINA
FAIRVIEW LANDFILL
 (SITE ID NUMBER: NCD980557946)

SITE MAP

PROJECT NO. 127844-10000
 FILE NAME: Fig 1.DWG
 FIGURE
1